

Work Order ID 143637

143637

Page 1

Thursday, March 17, 2016 1:46:02 PM

Item ID: D350-748-143TRN

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: SS Crosstube Turning Detail

Start Date: 3/17/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/28/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MCS

Date: MAR 17 2016

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D350-748-143	A

100

0.00

100

Mori Seiki

Mori Seiki CNC Lathe Large

MORI SEIKI CNC LATHE LARGE

Memo

0.02

1-Fill tube with sand & install plugs on both ends as per Folio _____
 2-Turn first side as per Folio _____
 3- File transition lines smooth.
 FOLIO REV: N/A
 DWG REV: N/A

1 Ø mm
16/03/18

110

0.00

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

1 Ø mm
16/03/21

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

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Page 2

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1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

0.00

120

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.04

Mori Seiki CNC Lathe Large

1-Turn second side as per Folio _____
2- File transition lines smooth.
3-Scribe Part & Baton as per Dwg D350-748-143
FOLIO REV: W/A
DWG REV: A

1 0
mm L
16/03/22

130

0.00

130

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

1 0
mm L
16/03/22

140

0.00

140

QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

1 0
DAS
47
9-89
16-03-28

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process								
Misidentified ☐	☐	Past Due								
			OTHER : _____							

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Page 3

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Cust Item ID:

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

150

Crosstubes

Large Fab

Memo

0.00

0.01

Crosstubes

1-Grind machining marks

BC 16/04/04

190

190

Packaging

Packaging

Memo

0.00

0.00

Packaging

Identify and stock in kanban rack
Location: LG03

BC 16/04/04

200

200

QC

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

Quality Control

MLJ APR 05 2016

MLJ APR 04 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition				Completed By	
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
		OTHER : _____							

Picklist Print

Thursday, March 17, 2016 1:46:05 PM

Page 1

Work Order ID: 143637

143637

Parent Item: D350-748-143TRN

D350-748-143TRN

Parent Item Name: SS Crosstube Turning Detail

Start Date: 3/17/2016

Required Date: 3/28/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: NEW ISSUE - PRELIM - LL 12.05.08

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6021-125		Manufactured	No				Each	75.0000		1			

D6021-125

Crosstube Material - 17-4Ph SS

Location

Loc Qty

Loc Code

HALL

55

127271

35

85076

20

LG

20

20

1 mm 2 16/03/18
~~1 mm 2 16/03/18~~

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	☐ OTHER :					
Misidentified ☐	☐ Past Due						

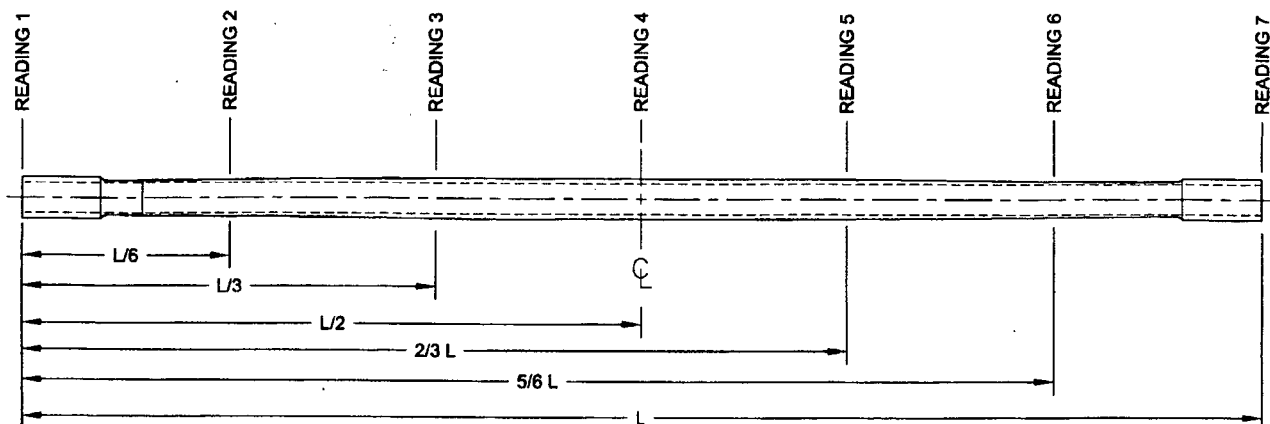
DART AEROSPACE LTD	Work Order: 143637
Description: Crosstube Assembly (AS350/355 High Fwd SS)	Part Number: D350-748-143
Inspection Dwg: D350-748-143 Rev: A	Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+/-0.005	2.244	✓		vern	CNC-08
	2.180	+0.005/-0.000	2.184	✓			
	2.180	+0.005/-0.000	2.183	✓			
	2.237	+0.005/-0.000	2.242	✓			
	2.272	+0.005/-0.000	2.276	✓			
	2.306	+0.005/-0.000	2.310	✓			
	2.339	+0.007/-0.000	2.343	✓			
	2.339	+0.007/-0.000	2.343	✓			
	0.062	+/-0.010	.063	✓		vern	CNC-08
	5.25	+/-0.060	5.25	✓		11	
	R0.063	+/-0.010	.063	✓		RG	
	R0.50	+/-0.030	.500	✓		11	
SIDE B	2.240	+/-0.005	2.245	✓		vern	CNC-08
	2.180	+0.005/-0.000	2.184	✓			
	2.180	+0.005/-0.000	2.183	✓			
	2.237	+0.005/-0.000	2.242	✓			
	2.272	+0.005/-0.000	2.276	✓			
	2.306	+0.005/-0.000	2.310	✓			
	2.339	+0.007/-0.000	2.343	✓			
	2.339	+0.007/-0.000	2.343	✓			
	0.062	+/-0.010	.063	✓		vern	CNC-08
	5.25	+/-0.060	5.25	✓		11	
	R0.063	+/-0.010	.063	✓		RG	
	R0.50	+/-0.030	.500	✓		11	
	112.27	+/-0.060	112.27	✓		tape	

DART AEROSPACE LTD	Work Order: 143 637
Description: Crosstube Assembly (AS350/355 High Fwd SS)	Part Number: D350-748-143
Inspection Dwg: D350-748-143 Rev: A	Page 2 of 2

WALL THICKNESS MEASUREMENT



Location	WALL THICKNESS MEASUREMENT (IN)				Deviation Δw (max-min)	TOLERANCE
	w1	w2	w3	w4		
READING 1 L = 0"	.117	.115	.112	.115	.006	0.030"
READING 2 L = 19	.127	.120	.114	.123	.013	
READING 3 L = 37	.166	.163	.164	.169	.006	
READING 4 L = 56	.165	.161	.160	.164	.005	
READING 5 L = 75	.167	.166	.163	.163	.004	
READING 6 L = 93	.123	.122	.121	.122	.002	
READING 7 L = 112	.115	.116	.116	.115	.001	

Calibration Result

Actual Block Thickness: 1.00 500

Sitiescan 250 Measured Thickness: 1.00 500

DAS
47

Measured by:	<i>mm/L</i>
Date:	16/03/22

Audited by:	9-89
Date:	16-03-28

Preliminary Approval:	
Date:	

Rev	Date	Change	Revised by	Approved
A	15.09.09	New Issue (P/O D350-748-103)	KJ <i>[Signature]</i>	<i>[Signature]</i>

Item	Qty	Part Number	Description
	-143		
	X	D350-748-143	CROSSTUBE ASSEMBLY (AS 350/355 HI FWD)
1	1	D6021-125	CROSSTUBE
2	2	D3502-1	SUPPORT
3	2	D5123-7	CLAMP CUSHION
4	1	AETC-1032	INSERT
5	2	MS21920-20 OR MS21920-21/-22	CLAMP (PER DART SPEC. M-MS21920-20/-21/-22)
6	1	NAS1149C0363R	WASHER (OR AN960C10)
7	1	NAS1635-3-8	SCREW (OR MS51958-63)
8	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6021-125 (17-4PH)
FINISHED LENGTH AFTER TURNING = 112.270±0.06 (AFTER BENDING/TRIMMING = 110.27 REF)
- 2) FINISH: PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCE: PER DART QSI 018 UNLESS OTHERWISE NOTED.
WALL THICKNESS ECCENTRICITY PER DART QSI 038 7.2
MIN. ALLOWABLE WALL IS -0.020 FROM NOMINAL
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: DART PART NUMBER 'D350-748-143' AND BATCH NUMBER ON INSIDE OF CUFF
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 30.45 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.290 HOLE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.

TURNING

- 10) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.

BENDING

- 11) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES PER SIDE. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D. ON TOP HALF OF BEND, AND 8% ON BOTTOM HALF OF BEND.
- 12) MAX AMPLITUDE OF RIPPLING ALONG BENT PORTION OF THE TUBE IS 0.030 (ZN A1-3)
- 13) MAX TWIST: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.38 (ZN C1-3).

ASSEMBLY

- 14) TO INSTALL D3502-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.02" TO 0.05" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 60 TO 80 IN.-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

NO. 143637 M.C.S

16-03-17

UNDER REVIEW

Q/15/11/24/ 9/16/25
CRF 15-565

DEO ATTACHED

RELEASED

2015 MAR 18

9/ECN 15-547

A	NEW ISSUE	CP	15.01.21
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN	Q		
CHECKED	A.P.		
MFG. APPR.			
DE APPR.			
DATE	15.01.21		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. D350-748-143		REV. A SHEET 1 OF 4	
TITLE CROSSTUBE (AS 350/355 HI FWD)		SCALE NTS	
COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

8 7 6 5 4 3 2 1

D

D

C

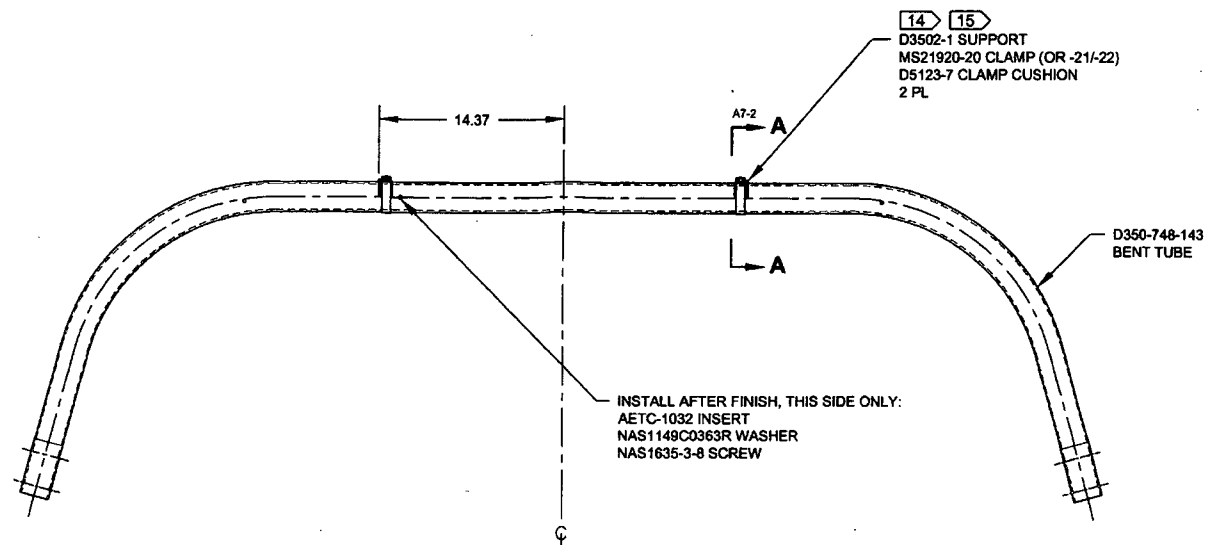
C

B

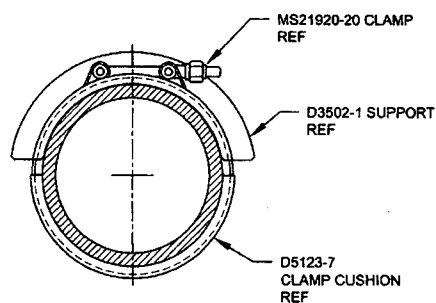
B

A

A



**D350-748-143
ASSEMBLY DETAIL**



SECTION A-A 04-2
SCALE 6X

DEO ATTACHED

RELEASED

2015 MAR 18

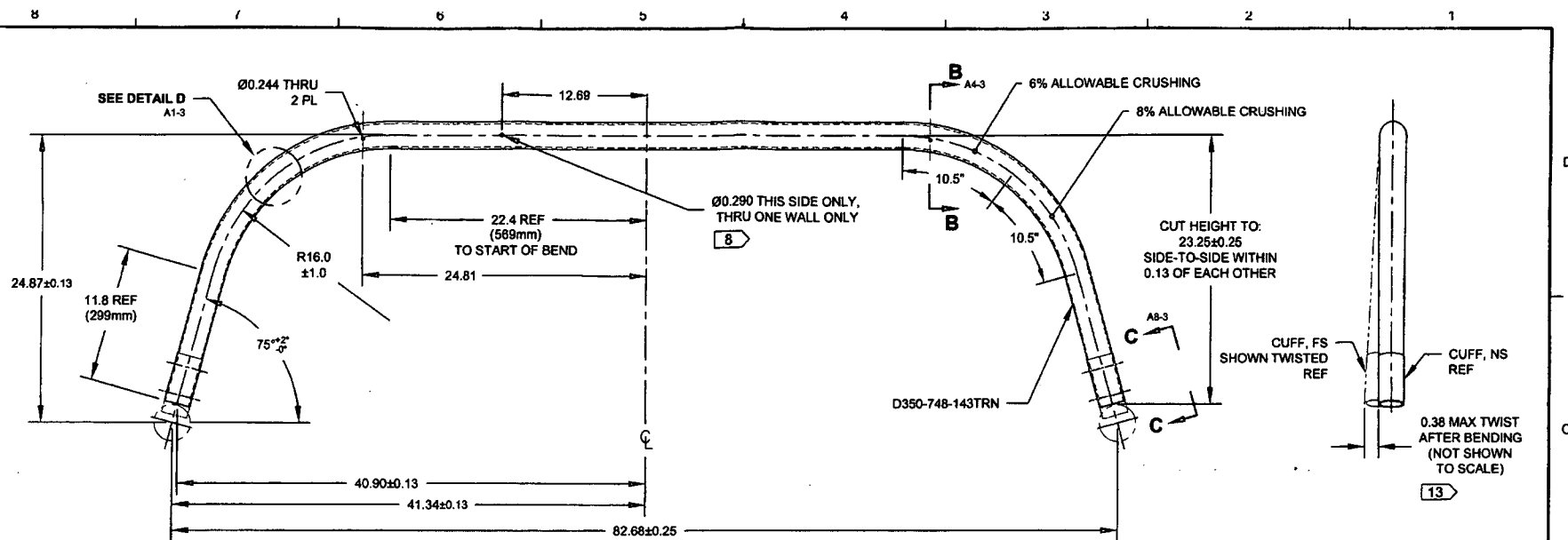
47 ECU-15-547

UNDER REVIEW

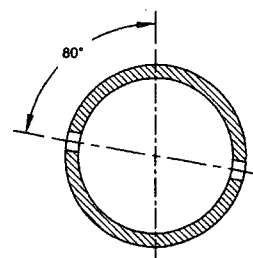
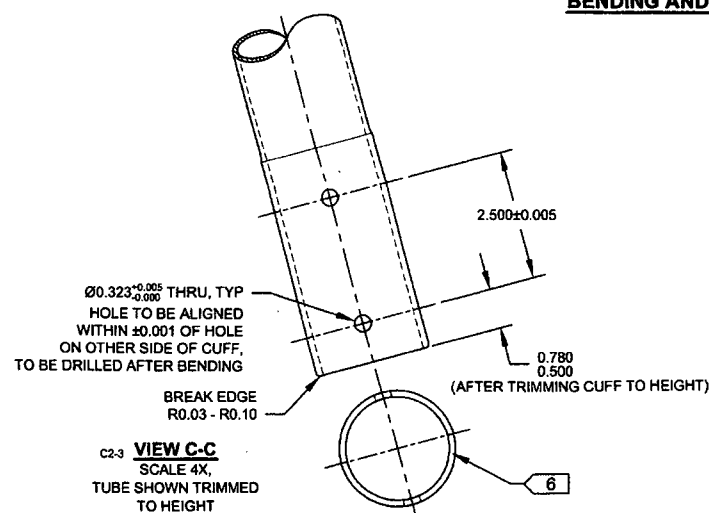
47 15/1/23 ok 9/12/23

DESIGN	97	DART AEROSPACE LTD	
DRAWN	97	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A.P.	DRAWING NO.	REV. A
MFG. APPR.	[Signature]	D350-748-143	SHEET 2 OF 4
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	15.01.21	COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



D350-748-143
BENDING AND DRILLING DETAIL 11

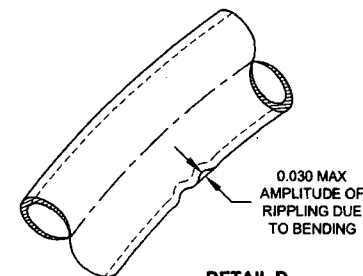


SECTION B-B D3-3
SCALE 6X

RELEASED
2015 MAR 18
DEO ATTACHED

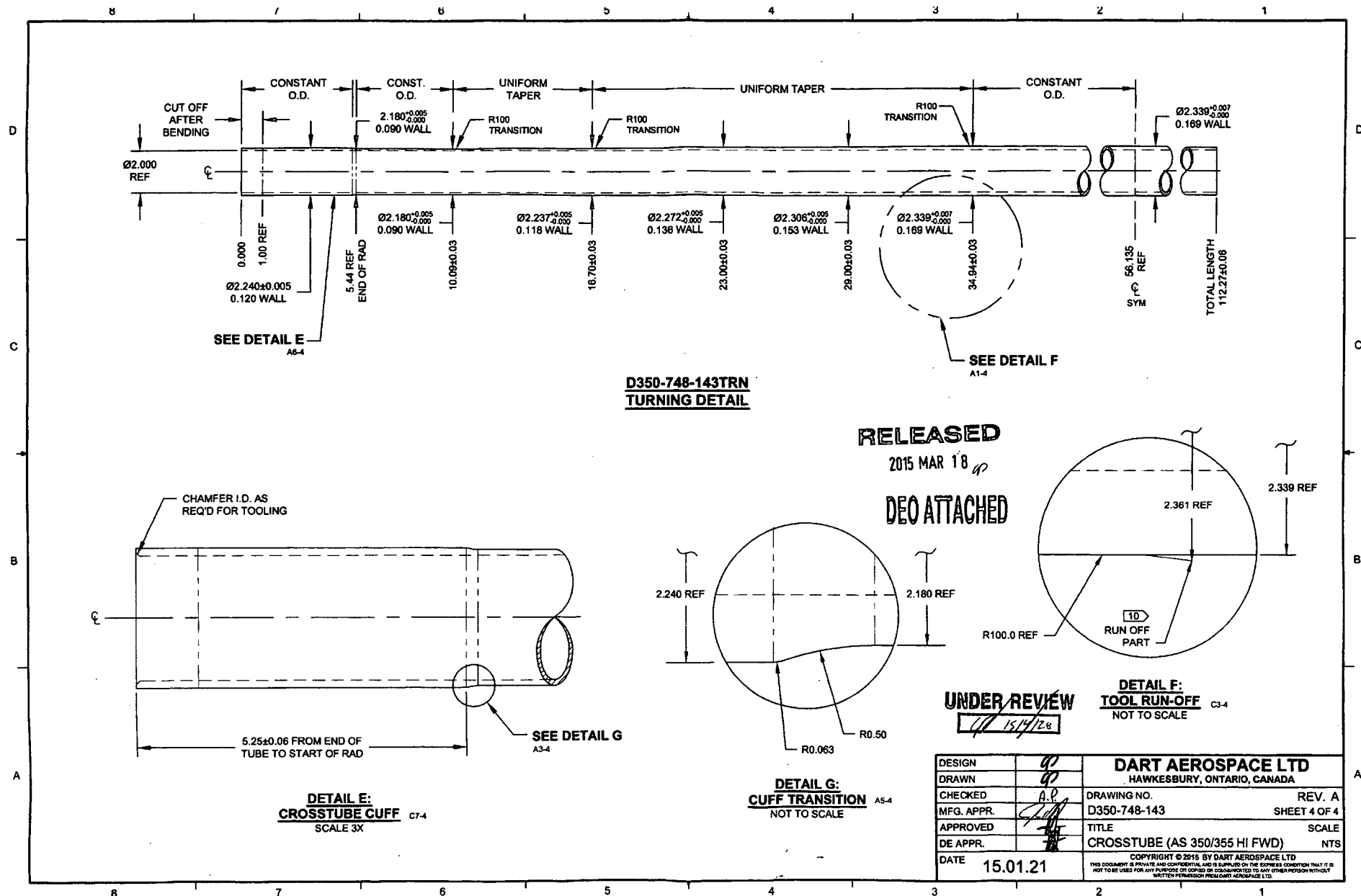
UNDER REVIEW

15/4/28
OK
16/2/29



DETAIL D D7-3
SCALE 4X
RIPPLING EXAGGERATED

DESIGN	<i>Q</i>	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AP</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D350-748-143	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	15.01.21	COPYRIGHT © 2015 BY DART AEROSPACE LTD	
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DRAWING NO. D350-748-143	TITLE CROSSTUBE	REV. A	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D350-748-143-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>ASS</i>	MFG. APPR. <i>GLM</i>	APPROVED <i>GLM</i>		DE APPR. <i>GLM</i>		
DATE 15.11.18	DATE 15.11.18	DATE 16.02.19	DATE FEB 19 2016		DATE 2016.02.19		

AMEND NOTE 2 (SHEET 1) AS FOLLOWS:

- 2) FINISH: PREPARE SURFACE PER DART QSI 005 4.1.4
 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
 PAINT OUTSIDE PER DART QSI 005 4.2
 OR
 POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3

RELEASED
 2016-02-26
 EN 16-534 *GLM*

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